

REMARKS

Claims 1-20 are pending, with claims 1, 7, 14, 15, and 16 being independent.

Claims 2, 8, and 17 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant will address these indefiniteness rejections after the following remarks regarding independent claims 1, 7, 14, 15, and 16 have been considered.

§ 102 REJECTIONS

Claims 1-2, 7-8, 11-12, 14-15, and 17 were rejected under 35 U.S.C. § 102(e) as being anticipated by Hidaka et al., U.S. Patent Application Pub. No. 2004/0151268. Claim 1 recites, in part:

a bandwidth controller configured to receive the compensated signal from the decision feedback equalizer and estimate a bandwidth error of the continuous time filter based thereon, the bandwidth controller further configured to generate a control signal based on the bandwidth error and to adjust the bandwidth of the continuous time filter using the control signal, and thereby reduce the bandwidth error as determined from the decision feedback equalizer.

The Office Action dated May 29, 2007, asserted that the “[c]ontrol and adjustment of adjustable filter 32 is provided by adaptation control 39” described in paragraph [0024] of Hidaka discloses the bandwidth controller. Applicant respectfully submits that does not disclose a bandwidth controller because nothing in Hidaka relates to estimating or adjusting bandwidth or bandwidth error.

The Office Action asserts that the error calculator 136 shown in FIG. 4 of Hidaka discloses “estimat[ing] a bandwidth error.” However, paragraph [0037] of Hidaka discloses that “[e]rror calculator 136 performs signal processing to calculate an error associated with the signal,” and discloses nothing about bandwidth or bandwidth error.

The Office Action further asserts that the “signal from unit 137 is a control signal used to adjust the continuous time filter 132” discloses “generat[ing] a control signal based on the bandwidth error,” and that the adjustable filter 132 shown in FIG. 4 of Hidaka discloses “adjust[ing] the bandwidth of the continuous time filter.” Again, the component box 137 and adjustable filter 132 shown in FIG. 4 of Hidaka, and their corresponding description, do not disclose any relationship to bandwidth or bandwidth error.

The Office Action further asserts that paragraph [0025] of Hidaka discloses “reduce[ing] the bandwidth error as determined from the decision feedback equalizer.” However, a careful reading of this paragraph discloses that “[e]rror calculator 38 performs signal processing to calculate an error associated with the sampled signal. Such error may comprise an amplitude error” (emphasis added). This paragraph makes no disclosure of bandwidth or bandwidth error.

Hidaka does not disclose the “bandwidth controller” recited in claim 1. Therefore, Applicant respectfully requests that the § 102(c) rejection of claim 1 based on Hidaka be withdrawn. Applicant further requests that the § 102(c) rejection of claim 2 based on Hidaka be withdrawn due to claim 2’s dependence on claim 1.

Claim 7 recites, “a bandwidth controller configured to receive the compensated signal and to adjust the adjustable bandwidth based thereon.” Applicant respectfully requests that the rejection of claim 7, as well as the rejections of claims 8 and 11-12, be withdrawn at least for the reasons described with reference to claim 1.

Claim 14 recites, “bandwidth control means for adjusting the bandwidth of the filter means to reduce channel induced distortion in the received information signal.” Applicant respectfully requests that the rejection of claim 14 be withdrawn at least for the reasons described with reference to claim 1.

Claim 15 recites, “generating a bandwidth error signal from at least the equalized filtered information signal; adjusting the first filter bandwidth to a second filter bandwidth; and filtering a next symbol of the information signal with the second filter bandwidth to reduce the bandwidth error signal.” Applicant respectfully requests that the rejection of claim 15 be withdrawn at least for the reasons described with reference to claim 1.

Applicant respectfully requests that the rejection of claim 17 be withdrawn due to claim 17’s dependence on allowable independent claim 16. The reasons for claim 16’s allowability will be described below.

§ 103 REJECTIONS

The Office Action dated May 29, 2007 rejected claims 3, 9, and 16 under 35 U.S.C. § 103(a) as being unpatentable over Hidaka in view of Wagner et al., U.S. Patent No. 5,179,302. Applicant respectfully submits that claims 3 and 9 should be allowable due to their dependence on allowable independent claims 1 and 7, respectively.

Applicant respectfully requests that the rejection of claim 16 be withdrawn due to its recitation of a bandwidth controller:

a bandwidth controller configured to receive the compensated signal from the decision feedback equalizer and estimate a bandwidth error of the continuous time filter based thereon, the bandwidth controller further configured to generate a control signal based on the bandwidth error and to adjust the bandwidth of the at least one cascaded low pass filter using the control signal, and thereby reduce the bandwidth error as determined from the decision feedback equalizer.

As discussed above with reference to claim 1, Hidaka does not disclose a bandwidth controller. Wagner is cited as disclosing a continuous time filter comprising at least one cascaded low pass filter. Applicant respectfully submits that Wagner does not compensate for the deficiency of Hidaka in failing to disclose the bandwidth controller. Accordingly, Applicant respectfully requests that the rejection of claim 16 be withdrawn.

Claims 4, 10, and 18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hidaka in view of Wagner and further in view of Wu, U.S. Patent No. 6,968,167. Applicant respectfully requests that these rejections be withdrawn due to these claims' dependence on allowable base claims.

Claims 5, 11, and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hidaka in view of Gelfand, U.S. Patent No. 6,144,697. Applicant respectfully requests that these rejections be withdrawn due to these claims' dependence on allowable base claims.

Claims 5, 11, and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hidaka in view of Kaneda et al., U.S. Patent Application Pub. No. 2005/0019042. Applicant respectfully requests that these rejections be withdrawn due to these claims' dependence on allowable base claims.

ALLOWABLE SUBJECT MATTER

Applicant appreciates the Examiner's indication of allowability regarding claims 6, 12, and 20. Applicant will address these claims when the outstanding rejections of claims 1, 7, 14, 15, and 16 have been resolved.

Conclusion


Applicant believes that all pending claims are in condition for allowance and respectfully requests notification to that effect. The Examiner may telephone Applicant's attorney (208-286-1013) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 50-3521.

Respectfully submitted,

Brake Hughes Bellermann LLP
Customer No. 57246
Phone 208-286-1013

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By: 
Shane A. Kennedy
Reg. No. 54,760